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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/579,418

05/15/2006

Aalbert Stek

NL 031333

7899

24737 7590 04/24/2007

PHILIPS INTELLECTUAL PROPERTY & STANDARDS

P.O. BOX 3001

BRIARCLIFF MANOR, NY 10510

EXAMINER

HUYNH, PHUONG

ART UNIT

PAPER NUMBER

2857

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

04/24/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/579,418	Applicant(s) STEK ET AL.	
	Examiner Phuong Huynh	Art Unit 2857	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05/15/2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 May 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are not acceptable because the unlabeled rectangular box 1 shown in Figure 2 should be provided with descriptive text labels. See MPEP § 608.02 (V), and 37 CFR 1.84(n)-(o).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities:

At page 4, lines 5 and 10, "claim 3" and "claim 4" should be deleted as the number of claims is subjected to change.

At page 5, line 13, "Fig. 1a" should be changed since Figure 1a is not present in the record.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-5 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. A process is statutory if it requires physical acts to be performed outside the computer independent of and following the steps to be performed by a programmed computer, where those acts involve the manipulation of tangible physical objects and result in the object having a different physical attribute or structure (see MPEP 2106). A claim is limited to a practical application when the method, as claimed, produces a concrete, tangible and useful result; i.e., the method recites a step or act of producing something that is concrete, tangible and useful. Referring to the "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" in determining whether the claim is for a "practical application," the focus is not on whether the steps taken to achieve a particular result are useful, tangible and concrete, but rather that the final result achieved by the claimed invention is "useful, tangible and concrete."

Regarding claims 1 and 5, the system *for determining* a position of a rotor as claimed does not provide physical transformation, nor any useful concrete, and tangible result. Accordingly, Claims 1 and 5 discloses calculation means that calculates "sum of a squared value of the sine component and a squared

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value of a cosine component," "an amplitude correction factor", and "an amplitude corrected sine component and an amplitude corrected cosine component" [see claims 1, lines 6-12; and 5, lines 12-19].

Accordingly, the "amplitude corrected sine component" and the "amplitude corrected cosine component" are not recited as being communicated, communicated to the user, displayed, or stored in any tangible form for later use or access.

Although claims 1 and 5 are in the context of system claims, it is interpreted as a process claim and thus it is required that the claim produces a useful, concrete and tangible result.

Further, merely "calculating an amplitude corrected sine component and an amplitude corrected cosine component" is not sufficient to constitute a tangible result.

In other words, the claims do not provide any physical transformation, nor any useful, concrete and tangible result.

Regarding claim 2, the method as claimed does not provide any physical transformation, nor any useful, concrete and tangible result.

The method discloses steps of "generating a quadrature signal," "calculating sum of a squared value of the sine component and a squared value of a cosine component, an amplitude correction factor, and an amplitude corrected sine component and an amplitude corrected cosine component" [see claim 2: lines 1-12].

Accordingly, the "amplitude corrected sine component" and the "amplitude corrected cosine component" are not recited as being communicated, communicated to the user, displayed, or stored in any tangible form for later use or access.

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In other words, the claims do not provide any physical transformation, nor any useful, concrete and tangible result.

Claims 3 and 4 depend from rejected claim 2 and therefore are also rejected.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art in view of Fujii et al. (hereinafter "Fujii") (US Patent No. 5,808,462).

Regarding claims 1, 2, and 5, Applicant's admitted prior art discloses a position determining system for determining a position of a rotor of a motor, said system comprising:

Sensing means coupled to the rotor for generating in response to a rotation of the rotor a quadrature signal comprising a sine component and a cosine component,

Calculating means for calculating:

(i) a sum of a squared value of the sine component and a squared value of a cosine component,

(ii) an amplitude correction factor as the squared root of the sum [see Applicant's Specification: page 1; page 3, lines 4-7].

The admitted prior art does not disclose "an amplitude corrected sine component as the sine component divided by the amplitude correction factor and an amplitude corrected cosine component as the cosine component divided by the amplitude correction factor.

Fujii teaches an amplitude corrected sine component as the sine component divided by the amplitude correction factor and an amplitude corrected cosine component as the cosine component divided by the amplitude correction factor [see Fujii: col. 6, lines 1-19; and col. 6, line 65-col. 7, line 31; and col. 8, line 55-col. 9, line 9].

It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the invention of the admitted prior art to include the calculation, as taught by Fujii, to provide enhanced control or protection performance based on detected amplitude and phase in an electrical device [see Fujii: col. 7, lines 1-31].

Regarding claim 3, the admitted prior art does not disclose calculating a sum of an inverse sine value of the amplitude corrected sine component and an inverse cosine of the amplitude corrected cosine component.

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Fujii teaches calculating a sum of an inverse sine value of the amplitude corrected sine component and an inverse cosine of the amplitude corrected cosine component [see Fujii: col. 6, lines 1-19; and col. 6, line 65-col. 7, line 31; and col. 8, line 55-col. 9, line 9].

It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the invention of the admitted prior art to include the calculation, as taught by Fujii, to provide enhanced control or protection performance based on detected amplitude and phase in an electrical device [see Fujii: col. 7, lines 1-31].

Allowable Subject Matter

5. Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong Huynh whose telephone number is 571-272-2718. The examiner can normally be reached on M-F: 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on 571-272-2269. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from

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either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Phuong Huynh
Examiner
Art Unit 2857

PH
April 18, 2007

Hal Wachsman
HAL WACHSMAN
PRIMARY EXAMINER
Avr807